

Appl. No. 10/764,913
Reply to Office Action of January 24, 2007

Attorney Docket No. 2003-0305 / 24061.516
Customer No. 42717

Amendments to the Specification

Please replace the paragraph that begins in line 10 on page 16 with the following amended paragraph:

A second embodiment is illustrated in ~~FIGS. 7-12~~ FIGS. 7-8. Referring to FIG. 7, a partially formed transistor that includes a substrate 10 with isolation regions 11, a gate dielectric layer 12, a gate layer 13, and an underlayer 14 is formed as described previously. A top photoresist layer 20 is coated to a thickness of about 500 to 5000 Angstroms. The photoresist layer 20 and underlayer 14 form a bilayer stack. The photoresist layer 20 is preferably a positive tone non-silicon containing photoresist which highly absorbs 157 nm or 193 nm radiation so that during a typical patternwise exposure, only a small portion of the photoresist layer near the surface of an exposed region undergoes a photoinduced reaction. It is understood that a post-exposure bake may be necessary to increase the rate of the photoinduced reaction in order to decrease process time. Alternatively, a shorter wavelength than 157 nm may be used such as a 13 nm wavelength from an EUV source to patternwise expose the photoresist layer 20. A wavelength of less than 200 nm is preferred to enable the photoresist layer 20 to be selectively exposed in surface regions 21 having a width w_1 of below 100 nm. In an alternative embodiment, a longer exposure wavelength than 200 nm may be used if a width w_1 of about 130 nm or larger is desired.